



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of:**

Gealy et al.

**Serial No.:** 10/624,817

**Filed:** July 22, 2003

**For:** METHOD FOR STABILIZING HIGH  
PRESSURE OXIDATION OF A  
SEMICONDUCTOR DEVICE

**Confirmation No.:** 6649

**Examiner:** P. Perkins

**Group Art Unit:** 2822

**Attorney Docket No.:** 2269-3403.4US  
(97-0758.04/US)

**Notice of Allowance Mailed:**

March 23, 2005

**NOTICE OF EXPRESS MAILING**

Express Mail Mailing Label Number: EL994845269US

Date of Deposit with USPS: June 22, 2005

Person making Deposit: Steve Wong

**TRANSMITTAL LETTER**

Mail Stop Issue Fee  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants submit herewith Part B - Fee(s) Transmittal for the above-captioned application and a check in the amount of \$1,715.00 in payment therefor plus five (5) copies of the patent when issued.

Serial No.: 10/624,817

Also, enclosed is an Amendment Pursuant to 37 C.F.R. § 1.312(a) (9 pages); Comments on Statement of Reasons for Allowance (3 pages); and Fee Addressee for Receipt of PTO Notices Relating to Maintenance Fees (2 pages).

Applicants understand that no additional fees are required. However, if the Office determines that any comparison fees or other additional fees are required, the Commissioner is authorized to charge any such fees to TraskBritt Deposit Account No. 20-1469. A copy of this Transmittal Letter is enclosed for deposit account charging purposes.

Respectfully submitted,



James R. Duzan  
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Attorney for Applicant(s)  
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Telephone: 801-532-1922

Date: June 22, 2005  
JRD/ps:lmh

Enclosures: Part B - Issue Fee Transmittal  
Check No. 21840 in the amount of \$1,715.00  
Copy of Transmittal Letter  
Amendment Pursuant to 37 C.F.R. § 1.312(a) (9 pages)  
Comments on Statement of Reasons for Allowance (3 pages)  
Fee Addressee for Receipt of PTO Notices Relating to Maintenance Fees (2 pages)

Document in ProLaw



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**COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE**

Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Examiner indicates:

[P]rior art does not anticipate, teach, or suggest a method for oxidizing one of a gate dielectric layer and a cell dielectric layer on a portion of a silicon substrate in an atmosphere where the temperature of the silicon substrate is raised to a temperature of at least about 600°C; providing a gas atmosphere of N<sub>2</sub>O, the gas atmosphere of N<sub>2</sub>O having a pressure of at least about five atmospheres for

contacting at least a portion of the silicon substrate using a catalytically disassociated gas atmosphere of  $N_2O$ ; and contacting a portion of the gas atmosphere of  $N_2O$  with a catalytic matrix consisting of one or more metals for forming a catalytically disassociated gas atmosphere of  $N_2O$  for contacting at least a portion of the silicon substrate.

For example, Yamazaki et al. (5,840,600) disclose a method for oxidizing one of a gate dielectric layer and a cell dielectric layer on a portion of a silicon substrate in an atmosphere where the temperature of the silicon substrate is raised to a temperature in a range of about  $500^{\circ}C$  to  $700^{\circ}C$ ; providing a gas atmosphere of  $N_2O$ , the gas atmosphere of  $N_2O$  having a pressure of at least about five atmospheres for contacting at least a portion of the silicon substrate; and contacting a portion of the gas atmosphere of  $N_2O$  in a catalytic reaction. However, Yamazaki et al. do not disclose, anticipate, teach, or suggest contacting a portion of the gas atmosphere of  $N_2O$  with a catalytic matrix consisting of one or more metals for forming a catalytically disassociated gas atmosphere of  $N_2O$  for contacting at least a portion of the silicon substrate.

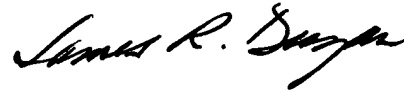
Kamiyama (5,508,221) discloses a method for oxidizing a portion of a silicon substrate where the temperature of the silicon substrate is raised to a temperature in a range of about  $700^{\circ}C$  to about  $850^{\circ}C$ ; providing a gas atmosphere of  $N_2O$ . However, Kamiyama does not disclose, anticipate, teach or suggest contacting a portion of the gas atmosphere of  $N_2O$  with a catalytic matrix consisting of one or more metals for forming a catalytically disassociated gas atmosphere of  $N_2O$  for contacting at least a portion of the silicon substrate.

The prior art made of record in this action does not anticipate, teach, or suggest a method for oxidizing one of a gate dielectric layer and a cell dielectric layer on a portion of a silicon substrate in an atmosphere where the temperature of the silicon substrate is raised to a temperature of at least about  $600^{\circ}C$ ; providing a gas atmosphere of  $N_2O$ , the gas atmosphere of  $N_2O$  having a pressure of at least about five atmospheres for contacting at least a portion of the silicon substrate using a catalytically disassociated gas atmosphere of  $N_2O$ ; and contacting a portion of the gas atmosphere of  $N_2O$  with a catalytic matrix consisting of one or more metals for forming a catalytically disassociated gas atmosphere of  $N_2O$  for contacting at least a portion of the silicon substrate.

Applicants concur with the reasons as stated by the Examiner insofar as they comprise a summary, and are exemplary and not limiting. However, the independent claims as allowed include other and different language than that specified by the Examiner, and the allowed dependent claims include other and further features and elements. Accordingly, the scope of the

claims must be determined from the literal language of each as a whole, as well as equivalents thereof.

Respectfully submitted,



James R. Duzan

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